Report on Maple Products

The Associate Referee on Microbiological Methods for Maple Products reported collaborative results on the method for counting microorganisms in maple sirup (*This Journal*, **45**, 558 (1962)). Concordant results were obtained within laboratories, but highly significant differences were found between laboratories. Further study of the method is indicated.

The Associate Referee on Methods of Analysis of Maple Products has developed a modified procedure for determining the conductivity values to overcome inherent sources of error in the current official method, **29.151**. The modified procedure was studied collaboratively, and data obtained fell into two well-defined groups. Apparently an error is still inherent in the method. Further study and subsequent collaborative testing are contemplated.

The Associate Referee on Flavor of Maple Products presented a highly specific method for determining formaldehyde in maple sirup, even in the presence of sugar decomposition products. Collaborative studies on the method are planned. The Associate Referee also described a method for the gas chromatographic identification of the principal constituents of chloroform (flavor) extracts in maple sirup. Progress has been made on the study, and further work is planned.

Recommendations

It is recommended—

(1) That collaborative studies be continued on the conductivity values for maple sirup.

(2) That work be continued on methods for the determination of syringaldehyde and other flavor components in maple sirup.

(3) That collaborative studies be continued on the method for counting microorganisms in maple sirup.

(4) That a collaborative study be made of the method for determining formaldehyde in maple sirup.

Report on Sugar and Sugar Products

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The procedure described in paragraph **29.035(c)** of *Official Methods of Analysis* ("Invert sugar std soln") depends entirely on acidity for prevention of mold and bacterial growth. Many sugar laboratories use a 1% standard invert sugar solution containing benzoic acid and prepared according to the procedure of Eynon and Lane, *Intern. Sugar J.*, **51**, 169 (1949): Dissolve 23.750 g of pure sucrose in about 120 ml distilled water and add 9 ml of coned HCl (sp.gr. 1.16). Let stand at room temperature 8 days; then dilute to 250 ml. Check hydrolysis by a saccharimeter reading. Dilute 200 ml of this 10% solution of invert sugar, and treat, with swirling, with enough 1*N* NaOH so that when the solution is diluted to 2000 ml, it will be about 0.001*N* in HCl. Add 4 g benzoic acid dissolved in warm water, cool, and dilute to exactly 2000 ml to give a 1% invert sugar solution in 0.2% benzoic acid solution. This solution is reported by Eynon and Lane to be stable up to 4½ years.

In 1961, it was recommended that the official method for sulfated ash, **29.014**, be studied with regard to the proper temperature for the final heating. The method now